REMARKS

Claims 26 and 29-54 are currently pending in this application. In view of the remarks to follow, Applicants respectfully request reconsideration and allowance of this application.

In the Office Action, Claims 26 and 29-47 were rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,835,199 to McGuckin ("McGuckin") in view of U.S. Patent No. 5,433,721 to Hooven et al. ("Hooven") and U.S. Patent No. 5,690,269 to Bolanos et al. ("Bolanos"). McGuckin discloses a system for stapling tissue shown in FIGS. 5, 14 and 15 reproduced below. The system includes a C-shaped stapling assembly 16 which includes a clamping member 60 to finely approximate jaws 17 and an I-beam member 70 including upper and lower beam portions 82a and 82b connected by a central web portion. Each beam portion has a substantially linear transverse cross-section. McGuckin's assembly 16 includes a drive cable 64 for driving a drive gear 63 to actuate clamping member 60. A linear drive screw 76 drives a flexible pusher 80 to actuate I-beam member 70.

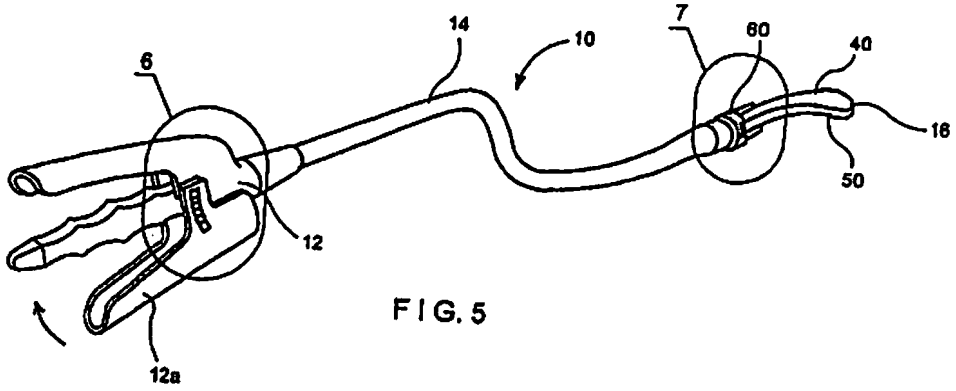


FIG. 5

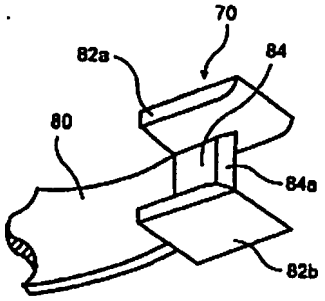


FIG. 14

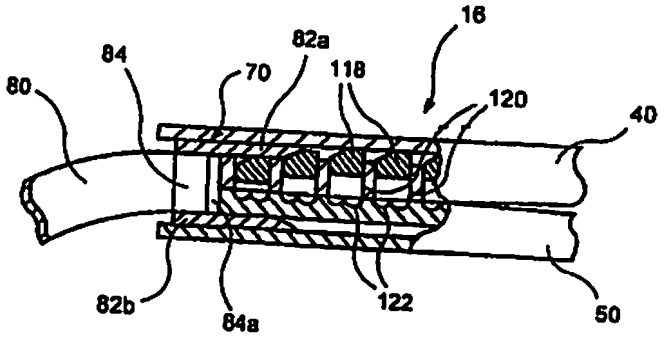


FIG. 15

Hooven discloses an endoscopic instrument shown in FIGS. 1 and 6 reproduced below.

The instrument 30 includes a handle portion 40, a housing 41 and a head portion 42. Housing 41 includes a rotating drive shaft 61. Head portion 42 includes a cartridge portion 74 and an anvil portion 75. The cartridge portion 74 and anvil portion 75 are pivotally connected to each other by an anvil pivot pin 76. A closure nut 77 includes a closure pin 78 which moves in slot 79. When the flexible drive shaft 61 is rotated, closure nut 77 moves down a threaded rod 71 to close the anvil portion 75. Threaded rod 71 includes a smaller diameter portion 73. A firing member 86 includes a knife 82 and wedges 83. When portion 73 is rotated, firing member 86 including knife 82 and wedges 83 move forward within head portion 42 to drive staples from cartridge portion 74 and cut tissue.

FIG. 1

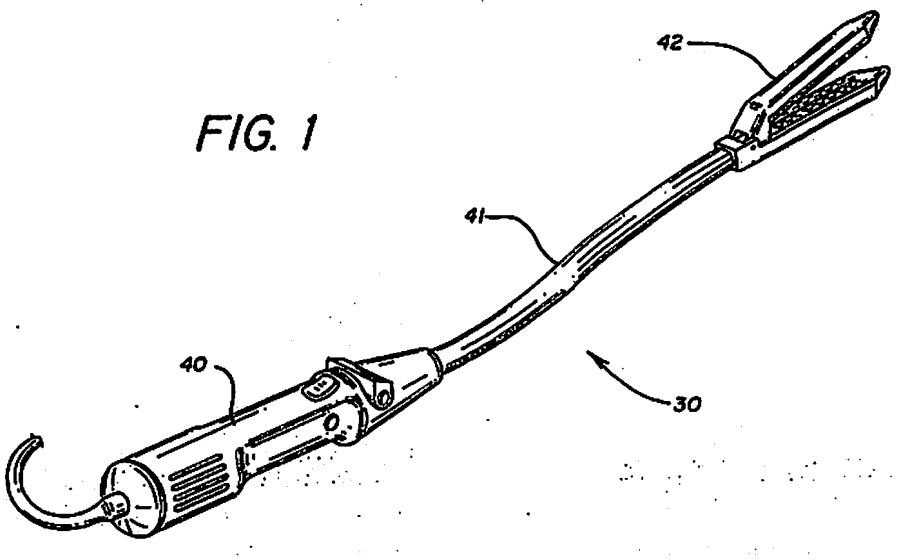
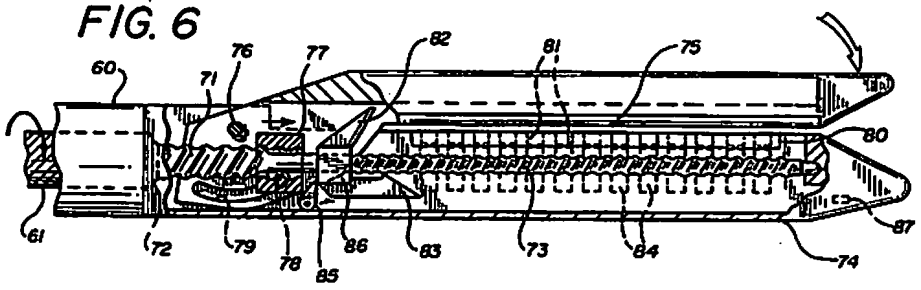


FIG. 6



Bolanos discloses an endoscopic stapler 10, shown in FIGS. 1, 3 and 6 reproduced below, which includes a handle assembly 12, an endoscopic portion 14 and a fastener applying assembly 20. Endoscopic portion 14 includes an articulation joint 16, an inner rod 70, a cover tube 102, firing wires 37, an articulation rod 96 and a sheath 200. Inner rod 70 is connected to a jaw cam pin 134. Cam pin 134 is received within jaw cam slots 130a and 130b of jaws 124a and 124b such that actuation of movable handle 60 effects movement of inner rod 70 and cam pin 134 to effect movement of jaws 124a and 124b. Sheath 200 (FIG. 6) is connected to a rotation knob and functions to translate rotational movement from the knob to the distal articulating portion 186 and jaws 124.

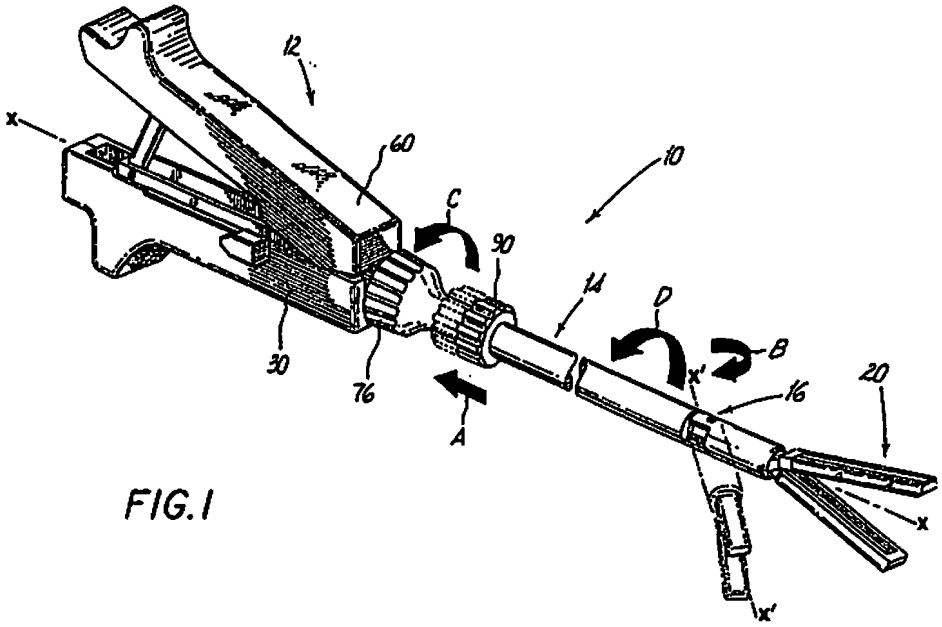
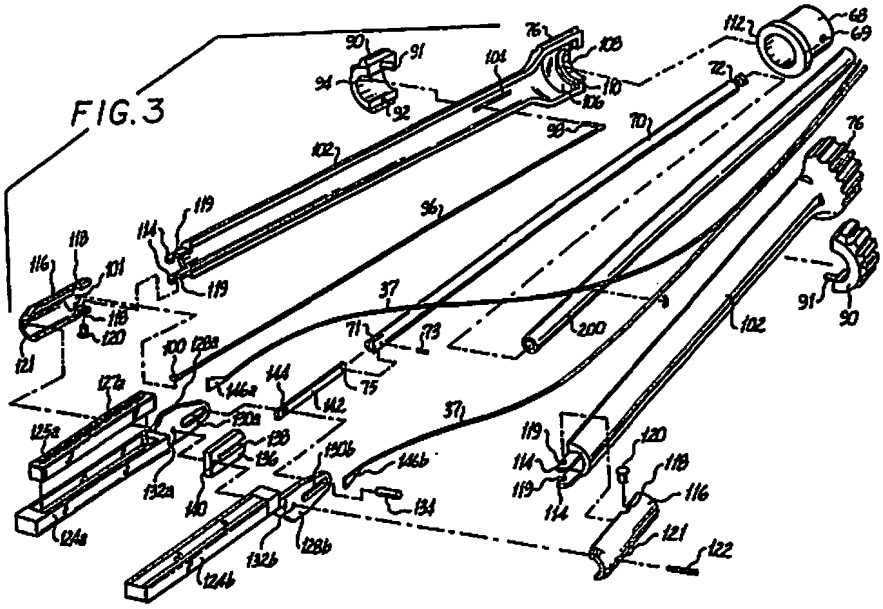


FIG.1

FIG.3



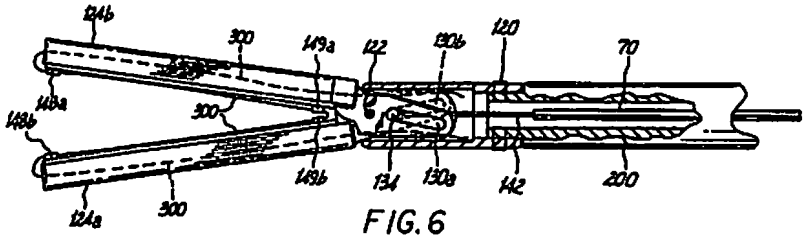


FIG. 6

Claim 26 recites a tool assembly comprising inter alia, a clamp member, a dynamic clamping member, and "a drive member operably connected to the clamp member and the dynamic clamping member, the drive member being formed from a cable and being movable to move the clamp member and the dynamic clamping member between their first and second positions, wherein the drive member includes a coaxial drive cable, the coaxial drive cable including an outer sheath and a center rod, the center rod being movable independently of the outer sheath." Applicants respectfully submit that McGuckin, Hooven and Bolanos, taken alone or in combination fail to disclose the tool assembly recited in Claim 26. More specifically, McGuckin fails to disclose "a drive member operably connected to the clamp member and the dynamic clamping member...wherein the drive member includes a coaxial drive cable, the coaxial drive cable including an outer sheath and a center rod." As discussed above, McGuckin's assembly includes a drive cable/drive gear to actuate the clamping member and a drive screw/flexible pusher to actuate the I-beam member and does not include a coaxial drive cable as recited in Claim 26. For at least this reason, Applicants submit that Claim 26 is patentable over McGuckin.

In the Office Action, the Examiner stated the following:

"With respect to claim 26, while McGuckin

discloses drive members connected to the clamp and dynamic members being formed from cable (64) and flexible member (80), respectively, McGuckin fails to disclose a drive member connected to both the clamp member and the dynamic clamping member. Hooven teaches the concept of a tool assembly for a surgical instrument including a clamp member (77), a dynamic clamping member (82, 83, 86), and a drive member (71) connected to both the clamp and the dynamic clamping members for the purposes evenly applying fasteners to tissue during endoscopic surgery.

Furthermore, the modified invention of McGuckin in view of Hooven, fails to disclose wherein the drive member includes a coaxial drive cable, the coaxial drive cable including an outer sheath and a center rod. Bolanos teaches the concept of a tool assembly having a drive member with a coaxial drive cable including an outer sheath (200) and a center rod (70) for the purpose enhancing the flexibility of said drive member. The modification of McGuckin in view of Hooven (to provide a single drive member), and further by substituting said drive member for a coaxial cable such as shown by Bolanos would have been obvious because the substitution of one known and equivalent mechanism (coaxial cable as shown by Bolanos) for another (rotatable cables as shown by McGuckin and Hooven) would have yielded predictable results to one of ordinary skill in the art at the time of the invention and the technique for improving a particular class of devices was part of the ordinary capabilities of a person skill in the art. In the instance case, to provide a drive member as a coaxial cable including an outer sheath and a center rod, as taught by Bolanos, would be for the benefits of providing a simple and reliable drive mechanism, enhancing the flexibility of it, while at the same time providing sufficient rigidity to transfer force without buckling."

Applicants respectfully disagree with the Examiners characterization of the cited references.

More specifically, as discussed above, the Examiner stated that although "McGuckin fails to disclose a drive member connected to both the clamp member and the dynamic clamping member", Hooven teaches "a drive member (71) connected to both the clamp and the dynamic clamping members for the purposes [of] evenly applying fasteners to tissue." Applicants respectfully submit that the Examiner is mistaken. As discussed above, Hooven's threaded rod 71 advances a closure nut 77 to close the anvil portion 75 and a firing member 86 to cut and staple tissue. Hooven does not disclose a dynamic clamping member[1] as recited in Claim 26. More specifically, Hooven's firing member 86 is not configured to define a maximum tissue gap between the cartridge assembly and the anvil adjacent the dynamic clamping member during ejection of fasteners from the cartridge assembly as recited in Claim 26.

The Examiner further stated that although both Hooven and McGuckin fail to disclose a drive member which includes a coaxial drive cable including an outer sheath and a center rod that "Bolanos teaches the concept of a tool assembly having a drive member with a coaxial drive cable including an outer sheath (200) and a center rod (70) for the purpose [of] enhancing the flexibility of said drive member." As discussed above, Bolanos sheath 200 is connected to a rotation knob and functions to translate rotational movement from the knob to the fastener applying assembly. Center rod 70 functions to effect movement of jaws 124a and 124b. Bolanos also includes separate firing wires 37 which are pulled proximally to eject staples from the fastener applying assembly. The firing wires 37 are not concentric with the center rod 70 as

[1] The dynamic clamping member is recited in Claim 1 as follows: a dynamic clamping member movably positioned in relation to the anvil and the cartridge assembly, the dynamic clamping member being movable from a first position to a second position and configured to define a maximum tissue gap between the cartridge assembly and the anvil adjacent the dynamic clamping member during ejection of the plurality of fasteners from the cartridge assembly.

seen in FIG. 3 of Bolanos. Bolanos fails to disclose a coaxial drive cable as would be understood by one having ordinary skill in the art in light of the specification. See MPEP 2111.[2] Please note that Bolanos' linearly movable center rod 70 and rotatable sheath 200 are not connected to a clamp member and a dynamic clamping member as recited in Claim 26 and thus perform entirely different functions than the outer sheath and center rod recited in Claim 26.

In addition, even assuming one of ordinary skill in the art were to attempt to combine the teachings of McGuckin, Bolanos and Hooven applicants submit that the resultant device would not be remotely similar to the tool assembly recited in Claim 1. More specifically, if one were to modify McGuckin's drive cable 64, drive gear 63 and linear drive screw 76 to include Hooven's threaded rod 71, and thereafter further modify the modified device to include the Bolanos' rotatable sheath 200 and center rod 70 for camming the jaws 124a and 124b closed, the result certainly would not be a tool assembly including a clamp member, a dynamic clamping member and coaxial drive cable as recited in Claim 26.

For any or all of the reasons specified above, Applicants respectfully submit that Claim 26 patentably defines over the cited art and is in condition for allowance. For at least these same reasons, inter alia, Applicants submit that Claims 29-47 which depend from Claim 26, are also in condition for allowance.

In the Office Action, Claims 48-54 were rejected under 35 U.S.C. § 103(a) over McGuckin in view of Bolanos. In the Office Action, the Examiner stated the following:

[2] MPEP 2111 states that the pending claims must be "given their broadest reasonable interpretation consistent with the specification as it would be interpreted by one of ordinary skill in the art." Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005).

> "With respect to claim 48, while McGuckin shows wherein the flange portions have an arcuate edge portion, McGuckin fails to disclose wherein at least one of the upper or lower flange portions has an arcuate cross-section along an axis traverse to a longitudinal axis of the cartridge assembly. It would have been an obvious matter of design choice to have changed the shape of the flange portions to have an arcuate cross section as claimed, since such a modification would have involve a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. The change in shape would be for the benefit of matching a respective arcuate surface of either the anvil or cartridge assembly, if desired."

Applicants respectfully disagree. By providing a flange portion on the dynamic clamping member with an arcuate cross-section, the deflection of the cartridge and anvil assemblies during firing of staples can be minimized to more accurately maintain the desired maximum tissue gap and provide more accurately formed staples. Since neither McGuckin nor Bolanos disclose such a dynamic clamping member, Applicants respectfully submit that Claim 48 is patentable over the cited prior art and is in condition for allowance. For at least this same reason, Applicants submit that Claims 49-54 which depend from Claim 48 are also in condition for allowance.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims pending in this application, namely Claims 26 and 29-54 are in condition for allowance. Accordingly, early and favorable reconsideration of this application is respectfully requested. Should the Examiner feel that a telephone or personal interview may facilitate resolution of any remaining matters, she is respectfully requested to contact Applicant's attorney at the number indicated below.

Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. §1.16 and/or 1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account No. 21-0550. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge Deposit Account No. 21-0550 therefor.

Respectfully submitted,

Christopher G. Trainor

Christopher G. Trainor
Reg. No. 39,517
Attorney for Applicant

CARTER, DeLUCA, FARRELL & SCHMIDT, LLP
445 Broad Hollow Road, Suite 225
Melville, New York 11747
Phone: (631) 501-5700
CGT:dms

Correspondence address:
Chief Patent Counsel
Covidien
60 Middletown Avenue
North Haven, CT 06473

Christopher C. Travis